

ABSTRACT OF THE DISCLOSURE

A stable, close-coupled catalyst, an article comprising the close-coupled catalyst and a related method of operation. The close-coupled catalyst comprises a catalyst support and a palladium catalytic component. Preferably and optionally, there are stabilizers including alkaline metal oxide, and rare earth metal components selected from the neodymium and lanthanum components. The close-coupled catalyst composition includes substantially no additional oxygen storage component such as praseodymium or cerium compounds. There is preferably a catalyst such as a three-way catalyst downstream of the close-coupled catalyst. The downstream catalyst preferably includes an oxygen storage component such as cerium oxide or praseodymium oxide.

15